



POWAY TODAY

FOCUS ON WATER

WATER SUPPLY • WATER CONSERVATION • CALIFORNIA-FRIENDLY LANDSCAPING • 20 GALLON CHALLENGE

What's Inside...

Water Supply & Conservation

Conservation Incentive Programs

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20-Gallon Challenge

Youth Programs

Poway Declares Stage I Water Condition

Despite heavy rains this winter, Poway's water supply still faces serious challenges. In January 2008, the Poway City Council declared a Stage I water condition, urging Poway's residents and businesses to use water wisely.

Poway's water supply is imported from Northern California and the Colorado River. Southern California's water supply is challenged by dry weather trends over the past eight years and environmental limitations.

Weather conditions in Northern California, Colorado, Utah, Nevada, and Arizona have a greater impact on our water supply than local weather. The Colorado River Basin, which stretches 1,400 miles from the Rocky Mountains in Colorado to the Sea of Cortez in Mexico, is experiencing a prolonged multi-year drought. Both Lake Powell and Lake Mead are only half full.

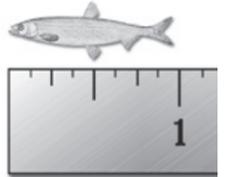
But the challenges are not caused only by the weather. Enormous pumps, located near the Sacramento River Delta, are used to send water down the State of California. Last year it was determined that these pumps harm a tiny fish, the delta smelt. Measuring less than an inch in size, these fish are an important link in California's biological ecosystem. Because of the harm caused to delta smelt, these pumps are now required to be used 30% less, which reduces the amount of water available for Southern California.

The water supply challenges are not a temporary problem. As Southern Californians, we need to focus on long-term changes in the way we use our water, particularly reducing outdoor water waste.

No mandatory water restrictions are part of the Stage

I water condition. Through successful voluntary conservation, Poway's goal is to avoid mandatory cutbacks.

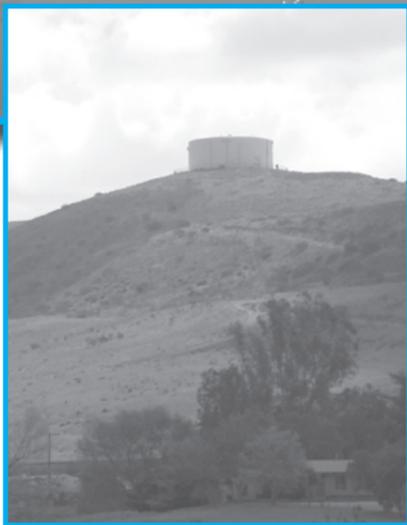
For more information on what you can do to conserve water, visit www.poway.org.



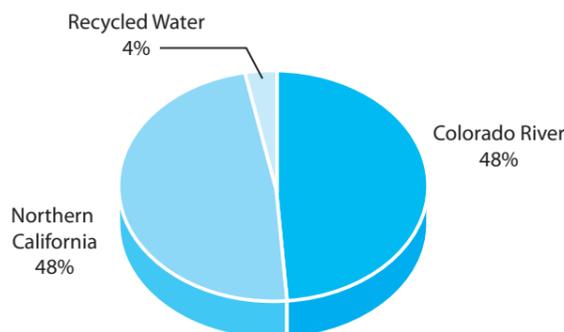
Environmental factors such as an extended drought and the endangered delta smelt shown above, are changing how Southern California manages its water supply.



Poway gets its water from both the California State Water Project and the Colorado River. This water is stored in Lake Poway, and then treated before being pumped into one of 16 storage reservoirs on Poway's hillsides.



Poway's Water Supply



Where Does Poway's Water Come From?

Poway imports 100% of its water

Poway's water supply comes from Northern California and the Colorado River Basin. This raw (untreated) water is brought to Lake Poway from the San Diego Aqueduct, which travels along Espola Road.

Water from Lake Poway is then treated at the Lester J. Berglund Water Treatment Plant, and dispersed to the City's 16 storage reservoirs. From the storage reservoirs, it then reaches Poway's water customers.

The exception is a small

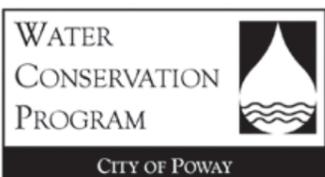
quantity of recycled water purchased from the City of San Diego for landscape irrigation in the Poway Business Park.

Poway purchases raw water from the San Diego County Water Authority. Annually, the City purchases roughly 4.6 billion gallons (14,337 acre feet) of water. All 23 water agencies that serve San Diego County are members of the County Water Authority and purchase water from this same source.

City of Poway Water Contacts & On-Line Resources

| | |
|--|--|
| Customer Services/Bill Payment | 858-668-4401 |
| Water Conservation | 858-668-4415 |
| Water Main Problems | 858-668-4700 |
| Water Quality | 858-668-4700 |
| Water/Sewer Emergency Number | 858-668-4449 |
| Neighborhood Water Awareness Reporting Program | 858-668-1215 |
| Incentive Programs | 800-986-4538 |
| Artificial Turf Incentive Program | 858-668-1215 |
| City of Poway..... | www.poway.org |
| San Diego County Water Authority | www.sdcwa.org |
| Metropolitan Water District | www.bewaterwise.org |
| Water Saver Home | www.h2ouse.org |
| Water Conservation Garden | www.thegarden.org |
| 20-Gallon Challenge | www.20gallonchallenge.com |

What has the City of Poway done to conserve water?



- Turned-off irrigation systems at City parks and publicly-maintained landscaped areas from the end of November through the rainy season.
- Evaluated the irrigation system for the landscaped common areas at the City-owned mobilehome park, to ensure it is running efficiently.
- Sought a \$25,000 grant to install smart weather-based irrigation controllers for City-maintained landscaping.
- Installed a specially-designed doggy drinking fountain at the Poway Dog Park that uses less water than a spigot.

Water Supply & Conservation FAQs

Q: What about all the rain this winter?

At press time, Poway has had 12.42 inches of rainfall since December 2007. This rain enabled residents and businesses to leave landscape irrigation off for an extended period, saving a significant amount of water. However, since Poway imports 100% of its water, weather conditions in Northern California and the Colorado River Basin are critical. The Colorado River Basin is in an extended dry period. Plus, with limitations on pumping water from Northern California, no matter how much rain and snow there is in the Sierras, we will not be able to pump as much water as we have in the past.

Q: Why should I voluntarily conserve now, if in a few months you will restrict my water use even further?

Through successful voluntary conservation efforts now, the goal is to avoid mandatory water restrictions later. If the water supply situation worsens or voluntary restrictions are not successful and mandatory restrictions become required, restrictions would not be based on the current year. Besides, if you use less water, your water bill will be lower.

Q: How do I install a gray water system?

Gray water reuses household water from washing dishes, laundry, or bathing to water landscaping. To legally install a gray water system, you need a permit from the County of San Diego. For more information, please contact the County's Land & Water Quality Division at: (858) 565-5173.

Q: Can I dig a well on my property?

San Diego County's Department of Environmental Health regulates the design, construction, modification, and destruction of water wells, in order to protect the County's groundwater resource. For general information, call (858) 565-5173 or visit www.co.san-diego.ca.us.

Q: San Diego is right on the ocean. Can't we tap the sea for more drinking water?

The San Diego County Water Authority is working with the City of Carlsbad and Poseidon Resources to develop a desalination facility in North San Diego County. Obtaining the necessary permits and ultimately constructing the facility is a long-term process. It will be some time before desalinated water will be available.

Poway Water System Facts

283 miles of pipe

16 storage reservoirs

4.7 billion gallons of water treated each year

Water Conservation Incentives

Financial incentives are available for a wide variety of water conservation devices and landscaping changes. A number of these rebates are outlined below, including the opportunity for on site surveys for your home and business. For a complete listing of incentives, and more details, visit www.poway.org.

Single-Family Residential

High-Efficiency Washing Machines

Save up to \$175 on a high-efficiency washing machine that uses 65% less water, 55% less energy, and results in cleaner laundry. Call (800) 986-4538 before you purchase, and request a voucher redeemable at participating suppliers throughout San Diego County.



potential leaks, recommend water conserving devices, assess irrigation efficiency, and determine a proper landscape watering schedule. To request a survey, please call (800) 986-4538.

Artificial Turf

Before you replace 300 square feet or more of existing watered lawn with artificial turf, call (858) 668-1215 or visit www.poway.org to learn more about this program. The rebate is \$1.00/sf for projects between 300 and 1,000 square feet. Every square foot over 1,000 square feet is eligible for a \$0.30/sf rebate.



On site Water Surveys

Residential surveys are available to single family customers looking to reduce outdoor water use. Surveys are conducted on site and identify

Commercial/Institutional/Industrial/Multi-Family/Homeowners Associations

Landscape Audits

Large Landscape Audits (Commercial Landscape Surveys) are available for sites over one acre to assess irrigation system efficiency, identify potential leaks, and determine a proper watering schedule. To request an audit, call (858) 668-4415.

Grants for Repairs/Upgrades

Public, commercial, and multi-family properties may qualify for grants up to \$2,500 per irrigated acre to replace or upgrade hardware and equipment that will stop leaks, reduce water use, or improve irrigation efficiency. Grants are limited to \$5,000 total for commercial or multi-family properties and \$10,000 for public sites. For more information, visit the Smart Landscape Program web site at www.sdcwa.org.

Smart Weather-Based Irrigation Controllers

A smart weather-based controller can reduce water usage outdoors. Unlike a standard automatic timer that turns on the sprinklers at set intervals, a smart controller uses weather data and site information to adjust watering times and frequency. Rebates are available for installation on certain properties in Poway. For more information, visit www.sdcwa.org.



Artificial Turf

Artificial turf incentives (up to \$0.50/square foot) are available for mobilehome parks, public and private schools, animal care facilities, and commercial sites. For more information, please call (858) 522-6762.

Commercial Water Conservation Device Rebates

Waterbrooms

Save time and money when cleaning tennis courts, pool decks, kitchens, outdoor eating areas, sidewalks, and more. Waterbrooms can save 5-15 gallons of water per minute, and clean in 75% less time. Call (800) 986-4538 for more information.



Pre-Rinse Spray Valves

Used in dining establishments to rinse dishes, new high-velocity, low-flow models can save water and energy. At two-hours of use per day, more-efficient valves can save 100 gallons of water per day. Call (800) 986-4538 for details.



Waterless Urinals

Waterless urinals do not require flushing and can save up to 40,000 gallons of water per year. Discounts of up to \$400 are available. Call (800) 986-4538 for details.



Ultra-Low Flow Toilets

Pre-1981 toilets use 5-7 gallons of water per flush, compared to the 1.28-1.6 gallons per flush used by newer, more water-efficient toilets. This rebate is not available for single-family homes. Call (800) 986-4538 for more information.

Dry Vacuum Pumps

Used in many businesses, such as dental and medical offices, liquid ring vacuum pumps use large quantities of water as a seal to create the vacuum. Dry vacuum pumps create the vacuum by using parts which are machined with extremely close tolerances. Call (800) 986-4538 for more information.

Visit the Water Conservation Garden!

Cuyamaca College demonstrates landscaping designed to save water

Stroll through more than 4 acres of displays that showcase water conservation through a series of beautiful themed gardens – such as a native garden, bird and butterfly garden, and vegetable garden, as well as how-to displays about mulch and irrigation.

Programs include:

- Classes on water-wise landscaping, pruning, composting, firewise gardening, children's gardening, and art;
- Training in water conservation for professional landscapers;
- Free, docent-led tours every weekend;
- School tours;
- Garden Discovery Camp for Kids in July; and
- Educational special event – CA-Friendly Gardening Festival (October).

**Admission
is FREE!**

www.thegarden.org • (619) 660-0614
12122 Cuyamaca College Drive West, El Cajon

THE
WATER CONSERVATION
Garden
AT CUYAMACA COLLEGE
DEMONSTRATING WATER WISE LANDSCAPING SINCE 1999

Six Steps to a California-Friendly Garden

By Nan Serman • Garden Writer and Designer

Interested in saving water and making your garden easier to care for? Transform your landscape into a “California-Friendly” garden. That may sound like a daunting task but really it isn’t, as long as you practice the two P’s: patience and planning. Here’s how:

Step 1: Focus on one part of the garden at a time – the front yard or the back yard, or even a single irrigation zone. What is an irrigation zone? Have you noticed that your sprinklers don’t all run at once? Instead, they are divided into zones, each of which waters one area of the garden: lawn, flowerbeds, vegetable garden, etc. By separating the garden into zones, you can customize each to provide just the right amount of water – no more and no less.

There’s another reason for creating separate watering zones – water comes into your property at a particular pressure. Too many sprinklers on a single zone is like running two showers at once – neither sprays at full force.

Step 2: Turfgrass is one of the thirstiest and most demanding plants in the garden. Unless you truly need a big lawn for kids to play on, you can make a huge difference by getting rid of it – or at least reducing its size. Then, watch your water bill take a nosedive.

Step 3: Switch to drip irrigation. Drip delivers water to where plants need it – at their roots. Since drip is slow, water penetrates deep into the soil rather than running off onto sidewalks and streets where it is wast-

ed. Drip irrigation is easy to install and easy to maintain. And plants love it.

Step 4: Check soil drainage. Most low water plants prefer well draining soils. Dig a hole about two feet deep by two feet wide. Fill with water, let drain, then fill again. Well-draining soils drain within a few hours. Poor draining soil can take several days. If soil drains poorly, consider bringing in new soil to form raised planting beds, a foot tall or taller.

Step 5: With soil and irrigation set, you can choose plants. This is the fun part. Start by checking the California-Friendly Nifty 50 list at www.thegarden.org/waterwise.html. Look through low-water gardening books (like mine). Cut out magazine photos and take pictures of gardens you like. Take the pictures to your local independent nursery for help identifying which plants are low water.

Step 6: Plan your new garden beds using the list of plants you assembled. Remember to group them according to how much light and how much water they need. Arrange them in an irregular pattern, using odd numbered groups – three, five, seven and so on. Set the tallest plants in back, the lowest in front. The layering, the irregularity and odd numbers will help make your garden look as if it were planned by Mother Nature – California’s Mother Nature!

Copyright © 2008 by Nan Serman, Author of *California Gardner’s Guide Volume II*. All Rights Reserved. For more information, visit www.PlantSoup.com.



The home of Poway residents Nick and Stephanie Kellar was awarded “Honorable Mention – San Diego Region” in the 2007 San Diego County California-Friendly Landscape Contest.

California-Friendly Plants

Perfect for water wise, fire-resistant landscaping

California-friendly plants are a great choice for Poway gardens. Not only beautiful, they require little water and are often fire-resistant.

Look Great, Less Thirsty

Plants native to this area and other Mediterranean climates are considered “California-friendly.” Perfectly suited to Poway’s mild winters and warm, dry summers, these plants grow naturally in California’s climate, and are less-thirsty. Many California-friendly plants are colorful and aromatic, such as Lavender and Rosemary.

Fire Wise Plants

Fire wise landscaping means creating a buffer around your home by changing, reducing, or eliminating the amount or type of plant fuel near your home. Many common plants naturally resist fire, and if properly

spaced will reduce the risk of a fire spreading to your home.

Irrigated plants with little oil and wax content, or ones which do not produce much litter are good choices. Plants that have high moisture content or are low-growing are also good near your home.

Think California-friendly when selecting trees, shrubs, groundcovers, or ornamental grasses for your garden – water wise, fire resistant, and beautiful.

“The Nifty 50” is a list of the top 50 tried and true landscape plants that are readily available, low water users, easy to maintain, and beautiful. See the complete Nifty 50 list at www.thegarden.org. Cross-reference the list with the Poway Fire Department’s list of recommended fire-resistant plants at www.poway.org.

California-Friendly /Fire-Resistant Plants

| | |
|--|--|
| Trees | African Sumac (<i>Rhus lancea</i>) Coast Live Oak (<i>Quercus agrifolia</i>) Strawberry Tree (<i>Arbutus unedo</i>) |
| Groundcover | Coyote Brush (<i>Baccharis spp.</i>) Creeping Sage (<i>Sedum spp.</i>) |
| Shrubs, Perennials & Ornamental Grasses | California Lilac (<i>Ceanothus spp.</i>) Rosemary (<i>Rosmarinus officinalis</i>) Penstemon (<i>Penstemon spp.</i>) |

For ideas and photos, visit www.thegarden.org or www.bewaterwise.org

Landscape Calculator

Estimate how much water your landscape needs

Ever wondered how much water your plants really need? Chances are they do not need as much water as you think.

For an easy-to-use landscape calculator, visit www.apps.sandiego.gov/landcalc/. Hosted by the City of San Diego, the Landscape



Calculator estimates the right amount of water for landscapes or gardens for all San Diego County zip codes.

The calculator is designed to give you a weekly schedule for the maximum amount of water your plants need each month of the year.

FREE LANDSCAPING CLASSES

California-Friendly Gardening for the Water Wise Gardener

CLASS TOPICS:

- Landscape Design Basics
- California-Friendly & Native Plants
- Landscape Sprinkler Systems
- Soils, Watering & Fertilizers

To learn more and enroll for a class, visit www.poway.org, or call (858) 668-4415.

Efficient Irrigation System Tips

Water for outdoor irrigation accounts for 50% of the drinking water supply. Efficient sprinkler systems and California-friendly plants achieve big water savings. Here are a few steps you can take to maximize the efficiency of your irrigation system:

- Water yards only between 8 pm and 6 am.
- Turn sprinklers off when it’s raining.
- Inspect your system for any leaks, broken parts, or clogged sprinkler heads.
- Consider replacing older systems with drip irrigation or smart weather-based controllers.
- Make sure sprinklers are not watering the sidewalk.
- Use less-thirsty, beautiful, California-friendly plants.

The 20 Gallon Challenge

Save Water Now



Take the 20-Gallon Challenge!

Join other families in Southern California to conserve water by reducing your consumption

Put your family to the challenge of saving 20 gallons of water per family member per day. It's easier than you think! 20 gallons per day per family member equals a 10% savings. If all 50,000 Powegians save 20 gallons per day, Poway residents would save more than one million gallons per day! That's 1,100 acre-feet.

Region-wide, the goal is to save 56,000 acre-feet in 2008. One acre-foot measures one acre area, one foot deep -- enough water for two families for a whole year.

The chart below shows simple steps you can take now to voluntarily reduce your water consumption.

| Indoors | Water Savings |
|--|-------------------------|
| Run the dishwasher only when full | 2.5 gallons per load |
| Turn off water while rinsing dishes | 2.5 gallons per minute |
| Wash only full loads of clothes | 15-50 gallons per load |
| Outdoors | Water Savings |
| Water only before 6:00AM and after 8:00PM to avoid evaporation | 20-25 gallons per day |
| Adjust your sprinklers to prevent overspray | 15-20 gallons per day |
| Install covers on pools and spas to reduce evaporation | 30 gallons per day |
| Take your car to a professional car wash where water is recycled | 40 gallons per car wash |
| Use a broom instead of a hose to clean driveways and sidewalks | 20 gallons per minute |

Visit www.20gallonchallenge to learn more and to pledge to participate.

Poway's Youth: Learning About Water Conservation

Teaching that water is a precious resource starts early. Poway has several fun programs that educate youth on the importance of water conservation.

Splash Lab

Geared toward grades 4-6, this mobile science laboratory includes hands-on experimentation, observation, group problem solving, and computer analysis. Topics include life in an estuary, water quality testing, storm drain pollution prevention, and conservation. For information, call (858) 668-4415.

Water Conservation Patch Program

Offered by the San Diego County Water Authority, the Patch Program gives kids an opportunity to learn where our water supply comes from and how to conserve water. The requirements are customized for Boy Scouts, Girl Scouts, Campfire Boys/Girls, and Youth Organizations. For more information, visit www.sdcwa.org/education.



Traveling Library

Enjoy a freestanding library display for three weeks, including 100 books geared toward grades K-6. This program also includes a presentation for third graders. For more information, visit www.sdcwa.org/education, or call (858) 522-6719.

Musical Science Show

A 40-minute assembly for grades K-8, "H₂O, Where do you Go?" covers the importance of water, where it comes from, and why everyone should conserve in a fun, educational, entertaining way. The shows are FREE for a minimum of 200 students. For more information, visit www.sdcwa.org/education.

Teacher Curriculum

The San Diego County Water Authority offers FREE workshops and training materials (aligned with State standards) for teachers to incorporate water conservation into their curriculum. Mini-grants for school teaching gardens are also available. For more information, visit www.sdcwa.org/education or call (858) 522-6719.

4th Grade Poster Contest



In 2008, Poway invited several elementary schools to participate in a water conservation poster contest for fourth graders. Winning posters will be considered for a 2009 calendar sponsored by the 13 water agencies of North San Diego County. For information on the 2009 contest, please call (858) 668-4415.

Leak Detection

Stop leaky plumbing and save water and money

Leaks can easily waste up to 20 gallons of water per day, depending upon the size of the leak. Dripping faucets, leaky toilets, and broken sprinkler valves or heads all result in

wasted water and should be promptly repaired.

Some leaks are obvious. Others are not. Your water meter can be a valuable tool to determine if you have a

leak in your plumbing system. Instructions for reading your water meter are available on the City's web site at www.poway.org.

To detect a water leak, take the following steps:

- **Make sure no water is running.**
- **Turn off all faucets and water-consuming appliances – including the automatic ice maker and evaporative coolers.**
- **Read your water meter. Write down the current reading, including tenths of a cubic foot, or mark your meter with a felt tip pen over the needle.**
- **Read the meter again after 10 or 15 minutes. If the meter reading has changed or the needle has moved, you have a leak.**



A continuous leak from a hole this size would waste water in the amounts shown below:

| Leak Diameter at 60 PSI | Leak Size | Gallons Wasted - 3 months | Daily Average Wasted |
|-------------------------|-----------|---------------------------|----------------------|
| 1/4" | 6.5mm | 1,181,000 gal. | 13,122 gal. |
| 3/16" | 4.8mm | 652,000 gal. | 7,244 gal. |
| 1/8" | 3.2mm | 296,000 gal. | 3,388 gal. |
| 1/16" | 1.6mm | 74,000 gal. | 822 gal. |

Water Loss from common leaks:

| | |
|--|--------------------------|
| Leaking Toilet (1/2 gallon per minute) | 21,000 gallons per month |
| Drip Irrigation (1 gallon per minute) | 43,200 gallons per month |
| Dripping Faucet (60 drips per minute) | 192 gallons per month |
| Stuck Ice Maker (2 gallons per minute) | 86,400 gallons per month |



Splash Lab

Mobile science lab visits Poway

210 fourth and fifth grade students from Painted Rock Elementary experienced a mobile water science laboratory – the Splash Lab – in March 2008. Students conducted hands-on experiments and water quality tests, while learning about Poway's water supply and the need to conserve.

Neighborhood Water Awareness Program

Saving water is a community effort. If you see a water use situation that you think needs to be addressed, such as a broken sprinkler head or excessive run-off, let the City of Poway know by:

- 1) Calling (858) 668-1215, or
- 2) Go online to www.poway.org and visit the Water Conservation page, or search for "neighborhood water awareness."

